Analysis of June Electricity Loads

The following presents several indicators of peak demand reduction between 2000 and 2001.

Loads Adjusted for Weather and Growth

The table below shows actual data and weather adjusted data for the ISO control area. The actual loads include three factors: (1) weather; (2) economic growth; and (3) conservation. The purpose of this analysis is to remove the weather and economic growth factors in order to see the impact of conservation.

	Total Conservation in the ISO Area							
	Monthly Peak Demand (MW)				Monthly Energy (MWh)			
	June (data through June 28)							
	2000	2001	Diff	% Diff	2000	2001	Diff	% Diff
(1) Actual Metered Load	43,447	39,613	-3,834	-8.8	20,061,714	18,405,908	-1,655,806	-8.3
(2) Load Adjusted for Weather	38,822	34,067	-4,755	-12.2	19,957,751	17,866,971	-2,090,780	-10.5
(3) Load Adjusted for Growth and Weather	39,637	34,067	-5,570	-14.1	20,376,864	17,866,971	-2,509,893	-12.3

The actual metered load (line 1) is derived from ISO control area hourly loads published on the ISO OASIS site. Peak demand in June 2001 was 39,613 MW 3,834 MW lower than in June 2000.

Peak and energy data for the month of June are combined with temperature data for June to estimate temperature-sensitivity of load. These temperature sensitivities are applied to normal June temperatures to develop loads adjusted for weather differences (line 2).

To account for underlying economic growth, a growth factor derived form employment data is applied to weather adjusted 2000 values (line 3).

Comparison of Similar Hot Days

The table below shows temperatures and peak demand comparing a hot day in 2000 to a similar hot day in 2001.

		Maximum Daily Temperature ¡F			
Date	Day of Week	Sacramento	San Francisco	Los Angeles	ISO Peak Demand (MW)
6/13/2000	Tuesday	100	83	85	42,288
6/19/2001	Tuesday	99	81	85	38,289

The peak demand for the ISO control area for Tuesday June 13, 2000, was 42,288 MW. For a Tuesday in 2001 with similar temperatures, the peak demand was only 38,289 MW a difference of 3,999 MW or 9 percent.

Comparison of Similar Cool Days
The table below shows temperatures and peak demand comparing a relatively cool day in 2000 to a similarly cool day in 2001.

		Maximum Daily Temperature ¡F			
Date	Day of Week	Sacramento	San Francisco	Los Angeles	ISO Peak Demand (MW)
6/30/2000	Friday	82	61	80	38,187
6/1/2001	Friday	82	63	76	32,896

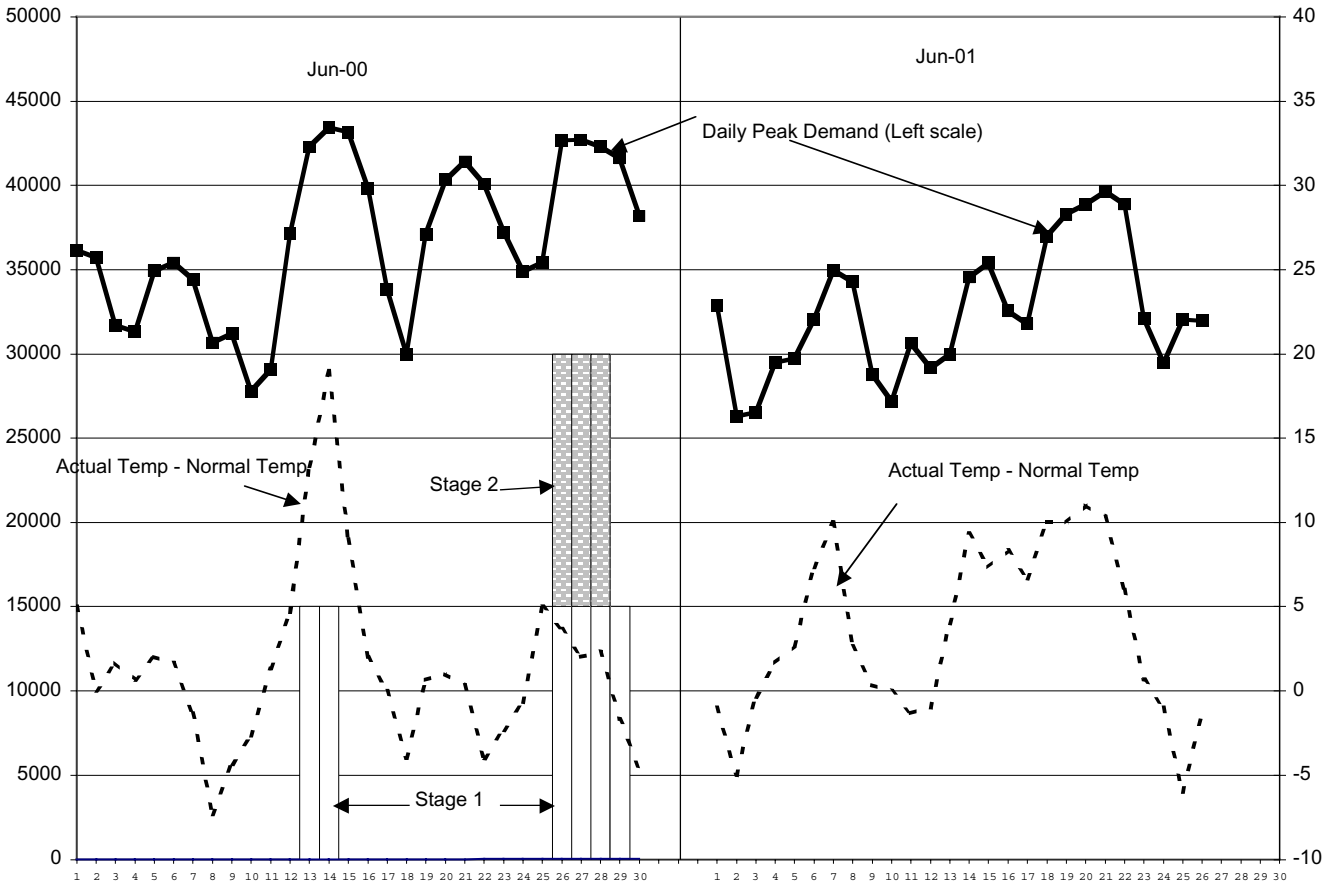
The peak demand for the ISO control area for Friday June 30, 2000, was 38,187 MW. For a Friday in 2001 with similar temperatures, the peak demand was only 32,896 MW a difference of 5,291 MW or 14 percent.

Other Items

- In June 2000 there were 10 days with loads greater than 40,000 MW
- In June 2001 there have been no days with loads greater than 40,000 MW.

- Seven of the high demand days in June 2000 occurred when temperatures were relatively normal.
- In June 2001 loads did not exceed 40,000 MW even though temperatures have been above normal at times.

- There were 6 Stage 1s and 3 Stage 2s in June 2000
- There have been no Stage 1 or Stage 2 Emergencies in June 2001.



This chart supports the bullets on page 2. The chart shows daily peak demand, actual temperature minus normal temperature, and Stage 1 and Stage 2 events.

The high temperature spike June 13-15 2000 is readily apparent with actual temperature exceeding normal by almost 20 degrees. During this period loads exceeded 40,000 MW and there were 2 Stage 2 Emergencies and rotating outages in the Bay Area.

Even though temperatures were closer to normal later in June 2000, there were 7 days of loads greater than 40,000 MW and 4 Stage 1 Emergencies and 3 Stage 2 Emergencies.

Although temperatures in 2001 did not rise 20 degrees above normal, they did spike early in the month to 10 degrees above normal and then later in the month were 10 degrees above normal for an extended time. At no time did load exceed 40,000 MW.